DOCUMENT RESUME

ED 143 009 CS 203 555

TITLE	The Impact of Creative Writing and the Other Arts on Literacy. Final Report.
INSTITUTION	Teachers and Writers Collaborative, New York, N.Y.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C. Office of Research Grants.
BUREAU NO	4-0468
PUB DATE	20 Dec 76
GRANT	NIE-G-74-0014
NOTE	34p.
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	*Achievement Gains; *Authors; Composition Skills (Literary); Creative Activities; *Creative Writing; Educational Objectives; *Evaluation Criteria; Intermediate Grades; Literacy; *Participant Characteristics; *Program Evaluation; Reading Level; Reading Research

ABSTRACT

The Teachers & Writers Collaborative, organized in 1967, places professional writers in New York City classrooms to work on a regular basis with teachers and children. A study was made of the collaborative's creative arts program for children in grades four, five, and six in one elementary school, in order to examine three aspects of the program: the type of children it attracted; the ways in which the writers defined the goals of the program; and the extent to which children achieved those goals. Analysis of the results indicates that children attracted by the program represented a cross-section of an economically and ethnically varied population and that the reading level of children who volunteered for extended work in the program was, on the whole, below that of children who did not volunteer for the program. The study also shows that the writers' comments on and criteria for children's writing are of a more specific nature than are those of classroom teachers. There is evidence that writers help develop skills in children that are displayed in writing and in classroom situations outside the program. (GW)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED143009

FINAL REPORT

PROJECT NO. 4-0468
GRANT NO. NIE-G-74-0014

THE IMPACT OF CREATIVE WRITING AND THE OTHER ARTS ON LITERACY

TEACHERS & WRITERS COLLABORATIVE
186 WEST 4TH STREET
NEW YORK, N.Y. 10014

DECEMBER 20, 1976

The research reported herein was performed pursuant to a grant with the National Institute of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official National Institute of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE
NATIONAL INSTITUTE OF EDUCATION
OFFICE OF RESEARCH GRANTS

CS203555

ABSTRACT

This project focuses on the questions: 1) what are the backgrounds of children participating in an arts program with professional writers; 2) how do the writers define the goals of the program, and what is their criteria for "good writing"; and 3) to what extent did children achieve the goals set by the writers and use valued writing skills outside the program? The research indicates that children attracted by the program represent a cross-section of an economically and ethnically varied population and that among children volunteering for extended work in the program, there is an "overrepresentation" of children whose language arts skills do not command top reading scores or grades. The report also shows that writer's comments on and criteria for children's writing are of a more specific nature than those of teachers. There is evidence that writers help develop skills in children that are displayed in writing and classroom situations outside the program.

THE IMPACT OF CREATIVE WRITING AND THE OTHER ARTS ON LITERACY

A Research Project Supported
By A Grant From The
National Institue of Education

Coordinated by
Teachers & Writers Collaborative
186 West 4th Street
New York, N.Y. 10014

Researchers:
Dr. Sylvia Scribner
Dr. Elsa Bartlett
Professors of Psychology, Rockefeller University

PREFACE

Teachers & Writers Collaborative was formed in 1967 by a group of writers concerned about the way students were learning to write in the public schools. The Collaborative was organized to send professional writers into New York City classrooms to work on a regular basis (as opposed to a one-day visit from "the poet") with teachers and children. Today, ten years later, the Collaborative operates on the same philosophy: professional artists can add a new dimension to the teaching of the arts, particularly writing. We are committed to working in schools for at least one year, and in many cases we have been in the same school for several years. (This report discusses the program at P.S. 75 in Manhattan, which has been in existence six years.) This ongoing presence enables T&W artists to initiate long-term projects and to build on work done in previous years. Children are given an opportunity to work on complex projects that require sustained concentration and motivation, and they can take pleasure and pride in completed works (films, books, dramatic productions, etc.). In recent years we have expanded our workshops to include drama, film and video production, and visual arts.

The experiences of the artists and the work students produce provide the material for the books and magazine we distribute to teachers and others interested in education and arts throughout the nation.

There are many indicators of the success of the Collaborative's program: teachers write letters of praise about our materials and continue to order our books; people in the community express enthusiam and give financial support when they see films made by children or a published novel by a nine-year-old; children from all backgrounds and with varied skills search out the program in their schools. This research report represents an attempt to document in more scientific terms the success of our program.

TABLE OF CONTENTS

	Page
List of Tables	1
Introduction	2
Research setting and questions	3
I. Characteristics of Children in the Program	5
Summary and Discussion	7
II. Criteria used by Writers and Teachers	8
Results	8
Summary and Discussion	9
III. Impact of Program on Children's Writing	10
Comparative Populations	10
Writing Task	11
Measures of Writing Skills	12
Analysis and Findings	13
1. Diversity	14
2. Authenticity	15
Summary and Discussion	16
General Discussion	16
References	19
Appendix A	20
Tables	21

LIST OF TABLES

		Pages
Table 1.	Demographic Characteristics, P.S. 75 Children, Grades 4-6	21-24
Table 2.	Involvement in Satellite Project Activities	25
Table 3.	Criteria used by teachers and writers in story ratings	26
Table 4.	Number of Complete Stories Obtained from Each Group	27
Table 5.	Comparison of Children's Writing: Selected Measures	28

Introduction

Two lines of interest converge in research on children's writing. The first arises from current theorizing in psychology about basic processes involved in reading and writing, and the relationship between these two literacy activities. Traditionally, psychological research has centered on the reading process. The almost complete neglect of the psychology of writing seems to have been predicated on the assumption that competence in comprehension of written text necessarily involves, as its byproduct, competence in the production of written text. Such a view stands in contrast to conceptions of the writing process advanced in classic psychological works, notably those of Vygotsky (1962). Vygotsky maintained that writing, both historically and ontogenetically, has a different relationship to speech than reading and involves a different system of cognitive activities. There is heightened interest today in exploring the implications of this viewpoint, especially since recent advances in discourse analysis (Frederickson, 1975; Meyer, 1975, for example) open new opportunities for studying written text and its production.

A second line of interest develops from needs within the educational community. Teachers of English at the secondary and college levels have become increasingly concerned with what has been termed the "crisis in writing" ----- deficiencies in basic writing skills of such a magnitude that they imperil the educational career of many students. Concern at upper school levels has in turn led to increased attention to the processes by which younger children acquire, or fail to acquire, foundational skills in writing. Current research in this area includes ethnographic studies by Graves (1973), Emig (1969) and Holstein (1970) which attempt to describe children's behaviors while writing, and a number of studies designed to assess the effects of instructional methods and other classroom variables (see summary in Graves (1973)).

To date, both research and curriculum development have focused on writing as a set of basic communication skills and on the role of the professional teacher in fostering them. Writing, unlike reading, however,

can be considered an art as well as a basic mode of literacy. The goals of the writing curriculum can include the development of creative writing talents in addition to technical skills and can appropriately involve instruction from professional practitioners of the art.

Although there have been only a few attempts to involve professional writers in the teaching of creative writing in elementary and secondary schools, the several existing programs seem to have met with considerable success. Children engaged in activities with writers have produced works of high artistic quality. Publications of children's writings have met with critical acclaim and admiration. However, there has been little systematic attempt to assess the effect of teaching writing as an art and, in particular, the effect of this kind of instruction on the development of basic literacy skills. The present report describes such an effort.

We will briefly sketch the background of this project and the questions it addressed. Each question will then be considered in turn: the methods of investigation brought to it, major findings and their implications.

Research setting and questions

Research was conducted among participants in the creative arts projects of the Teachers and Writers Collaborative, a group of writers and other professionals working in media such as video and film. The Collaborative program, in existence since 1967, stresses writing as an art form and has as its explicit goal the development of creative writing talents. The program has been successfully introduced into a number of New York City Public Schools and has attracted national attention for the artistic quality of work produced by children with whom it works. Of special importance is the fact that many poor and minority children who, in the conventional classroom context would be characterized as poor writers, have displayed great talent in Collaborative projects (samples of children's work are available from T&W). This in itself is an important

social contribution, readily recognized. The Collaborative's experience, however, has potentially broader value if it can be related to the pressing educational and psychological concerns outlined in the Introduction. This requires a more systematic appraisal of the impact of the program - the children it reaches and the extent to which skills developed in the program generalize to other contexts.

The specific research questions addressed in the present project evolved in a series of meetings between Collaborative staff and outside research consultants held in Fall, 1974. Several strategic decisions were taken at these meetings. First, it was decided to study the effects of the program in one school, P.S. 75, an elementary school in Manhattan. The school was considered an appropriate site for research because; 1) it served a more varied population than the typical New York City school; 2) the Collaborative had an ongoing program of activities at the school which could provide the basis for an evaluation and; 3) most importantly, school administration and teaching staff were interested and prepared to cooperate in the research. No other school met these conditions. Choice of P.S. 75 also entailed disadvantages, however, principally the fact that the Collaborative had been working there for six years. Under these circumstances, it was not possible to carry out the classic type of evaluation study involving "pre-treatment" and "post-treatment" comparisons.

To overcome this limitation, a "comparison school" was selected -- P.S. 84, another public school in the neighborhood, serving a similar population which had not been exposed to Collaborative activities.

Since most of the program's efforts were directed at Grades 4-6, it was decided to focus research efforts on these children.

Another major decision was to assess the impact of the program in terms of the goals the writers themselves were trying to foster, rather than in terms of performance on standardized tests of school achievement or reading ability. It may be the case that children's participation in a creative arts program improves their all around intellectual performance in school. It seems far-fetched to attempt to assess a claim of such generality, however, before determining whether a creative writing program succeeds in improving basic skills of <u>writing</u>. If Collaborative programs,

in fact, help to develop such skills in a cross-section of public school children, it can be concluded that they advance a fundamental educational objective. A further question would then become whether improvements in writing skills are related to improvements in reading and general academic skills.

Resources available for research activities were limited and clearly insufficient to furnish definitive answers to any major question concerning effects of Collaborative activities. Rather than retreat to more trivial questions, however, it was decided to tackle central issues, bringing as much evidence as possible to bear on them. The expectation was that results might prove suggestive of research directions to be explored in the future and that the experience in attempting research with a teacher and writer team would also be instructive.

It was decided to concentrate on the following questions:

1) Who participated in the program? Were the children in Collaborative projects representative of the school population as a whole or were they a group with special characteristics?

2) How did the writers define the goals of the program? Did their criteria for "good writing" differ from criteria used by language arts teachers in the school?

3) To what extent did children in the program achieve the goals set by the writers? Were valued writing skills observable in children's materials produced outside of project activities and independently of the professional writers?

I. Characteristics of Children in the Program

Preliminary interviews with teachers and writers in P.S. 75 produced a wide range of opinion as to the type of child most attracted to the program. Some claimed that the Program's principal appeal was to children whose home backgrounds initially predisposed them to literary activities; others felt that low income children were drawn to the Program for emotional

support and intellectual stimulation. Similarly, some pointed to poor school performers and others to high achievers as the most successfully worked with target group.

To test these rival claims a survey was conducted of all children in Grades 4-6. The survey questionnaire covered four broad categories of information: 1) family characteristics; 2) knowledge of English; 3) children's competencies in language arts and 4) children's social behavior. Data were collected from school records and teacher interviews, and were supplemented where possible, by telephone interviews with parents. For purposes of analysis, children were divided into two groups, reflecting the extent of their involvement with the Program. In the year under study, Collaborative staff conducted two types of activities in the school: activities in selected classrooms conducted with the whole class during the regularly scheduled school day, and 2) special workshop activities conducted with small groups of children during the school day (we will refer to these as "satellite" activities). The basic comparison is between characteristics of the children who volunteered for the special programs (satellite children) and those who did not (non-satellite children)*.

Data are presented in Table 1. Family background characteristics of the satellite children closely match characteristics of non-satellite children in terms of ethnicity (as indexed by language spoken at home), parent literacy and educational level, and number of homes with two parents. Parents' occupations were classified into professional, white collar and blue collar categories on the basis of available information such as job title and place of work.** Where father was living at home, father's occupation was used to classify the family; in the absence of father, mother's occupation was used. Assignments into these broad groupings were made by two data analysts, with 90% agreement.

---

*Since the writing program had been in effect in previous years, some of the children here classed as non-satellite may have participated in satellite activities in the past and some of those listed as satellite may not have participated in the past.

**There was a substantial amount of missing information and non-classifiable responses on this item. This probably resulted in an under-estimation of the blue collar population in both child groups, but since amount of missing data was comparable in the two groups, it can be assumed that missing data did not bias the comparison.

Satellite and non-satellite groups had roughly the same proportion of blue collar workers as compared to white collar and professional occupations.

Use of spoken English in the home is also comparable. The only demographic characteristic distinguishing the two groups is number of siblings, satellite children coming from homes with more brothers and sisters.

Teachers' ratings of children's social behavior show a somewhat greater proportion of satellite children in the Fair category and fewer in the Satisfactory category than non-satellite children. There is no evidence, however, that problem children flocked to the program.

Major differences in the two groups show up in language arts competencies. These measures include reading and writing scores on standardized tests administered to all New York City public school children and grades in language arts determined by the classroom teacher. Test scores and teachers' grades in spring, 1974, were used in this comparison since these pre-dated children's entrance into the program during the year of the study. All three measures indicate that satellite children perform more poorly than non-satellite children.

Table 2 assesses extent of involvement in satellite programs for children of different socioeconomic status. Writers kept records of children's attendance at satellite activities as well as their output. On this basis, they designated the children as low, average and high participators. Children from both blue collar and white collar and professional homes show similar distributions of degree of involvement in project activities.

Summary and Discussion

We can conclude that, for the year under study, the Collaborative satellite projects attracted children representative of the socio-economic and ethnic groups in the school's 4-6th grade population as a whole, and that participation was not biased toward any subgroup. Furthermore, once enrolled in project activities, the extent of children's participation and the amount of work actually produced, did not differ systematically across social groups. It has often been noted that volun-

tary programs introduced into schools to enrich curricula often wind up serving children who are already advantaged. This was not the case with Collaborative activities at P.S. 75.

The indication that Satellite children's reading level was, on the whole, below that of the non-satellite population warrants follow-up with other school populations served by creative writing programs. If replicated in other samples, it would suggest that such programs are especially successful in reaching children whose basic literacy skills do, in fact, need improvement. It would be useful to probe beneath this relationship to determine how such children get to the program - whether through subtle adult pressure (teacher or writer) or because of their own felt need or desire for more engagement with the written word.

II. Criteria used by Writers and Teachers

Writers believed their criteria for good writing differed from those used by the teachers. This question was investigated by comparing teacher and writer ratings for a sample of children's stories obtained in the classrooms under standard conditions. (For a description of the procedure used in obtaining story samples for analysis see Section III, p. 11).

Two types of story were included in the sample: Stories written in response to an "open assignment" (write anything you like) and stories written in response to a topic sentence (called skeleton stories). Fifteen open and twelve skeleton stories were randomly selected from the corpus of writing collected in the two comparison schools. Stories were given to four teachers (in grades 4, 5, and 6) and four writers. They were asked to rate each story as Good, Poor or Indifferent, and, in addition, to write comments on every story to support the judgment given.

Results

Of the 216 ratings requested, only 130 were completed and returned, - 58 from teachers and 72 from writers. For purposes of analysis, a sample was drawn consisting of all stories given ratings by a least two

teachers and two writers. This sample included twenty-two stories, nine skeleton and thirteen open.

On the whole, writers were more critical of the stories than the teachers. While only 14% of the teacher's ratings were in the "poor" category, more than twice that percentage was obtained from the writers (33%). By contrast, 69% of the teachers' ratings were in the "good" category as compared to 47% of those obtained from the writers. Both groups made about the same percentage of Indifferent ratings.

Teachers and writers showed considerable agreement in which stories they considered to be Good. Twenty-seven percent of the stories elicited good ratings from all four raters (two teachers and two writers), and another 20% from three of the four raters. Only two stories showed no overlap in ratings, both being judged good by both teachers and poor by both writers.

Comments on the stories were grouped into categories and are shown in Table 3. Both writers and teachers produced comments in each category. However, the distribution of comments for the two groups is quite different. Teachers most frequently made comments of a non-specific nature: either simple generalizations (general comments such as "not badly written" or "well expressed", made without further elaboration) or general references to the "originality" or "creativity" of the text. Writers, on the other hand, appeared to have more specific dimensions in mind: They referred to strength of feeling, believability, predictability, imagery and descriptive detail in the stories. Nearly half of their comments fell into these categories.

Summary and Discussion

Writers and teachers showed fair agreement on <u>what</u> they liked (stories judged to be good) but gave rather different reasons for their preferences. The intuitive notion that teachers apply standards of grammaticality and spelling accuracy in judging excellence of writing is not borne out by these data. Teachers differ from writers not so much in applying entirely different criteria but rather in their ten-

dency not to apply any specific criteria at all. This failure may be due to teachers' lack of vocabulary for talking about writing, or to lack of knowledge about or insensitivity to dimensions of creative writing.

III. Impact of Program on Children's Writing

While we can assume that individual children benefit from the opportunity to work with professional writers, we know very little about the nature of this effect, or its generality. From the point of view of creative arts, the discovery and cultivation of a single great talent may more than justify the investment of time, skills and money in writing projects in the public schools. From the public education point of view, however, it is necessary to weigh such individual gains against the needs of large groups of children whose interests might be better served by investments in other types of programs.

The aim of this aspect of the research was to determine whether Collaborative programs had an observable, measurable effect on writing skills of child participants, taken as a group, and in comparison with other children lacking such experience. This required selection of suitable comparison populations, development of a criterion writing task and development of measures of writing skill consonant with the writers' objectives.

Comparative Populations

As described above, there was no group of children at P.S. 75 which could be regarded as totally unaffected by prior Collaborative activities. Even if they had not personally participated in project activities, it was reasonable to assume that almost all children had been affected by the sustained presence of writers in the school and their close contact with teachers and other children. For this reason, a "non-contact" sample was drawn from two combined 5th-6th grade classes at a neighboring and comparable school (P.S. 84), where the students in the classes selected had not worked with the Collaborative. Two 5th grade classrooms in P. S. 75

which were involved in whole-class activities with Collaborative writers during the study year provided two levels of participating groups: children who participated only in classroom projects comprised a low-participation group; children from the same classrooms who were also involved in small group or individual "satellite" activities constituted a high-participation group.

Writing Task

To evaluate children's writings, it was essential that these be elicited in a standardized way. Further, since a principal interest was in determining whether effects of the writing program would transfer to other kinds of writing situations, it was decided to use eliciting procedures which reflected as closely as possible procedures used by teachers in motivating regular classroom writing assignments. To assess effects of program participation, written assignments were given twice, once in November ("pretest") and once in June ("posttest"). It was expected that there would be greater differences among the three comparison groups in the spring assignments than in the fall assignments.

A Collaborative writer who had no previous contact with children in either school came into the classrooms during regular class periods and gave the writing assignments. (Instructions and assignments are in Appendix A). Each class was given two assignments approximately one week apart: an open assignment (write anything you please) and an assignment to complete a skeleton story. Two skeleton stories were prepared, and order of presentation of assignments was counterbalanced. For example, if Classroom X in the fall first received an open-assignment and then Skeleton Story A, the order of testing in the spring would be Skeleton B followed by an open-assignment. This orderly design, however, was never fully executed. In spring, 1975, pending budget cuts placed special burdens on school staff; extra teacher responsibilities lowered morale and participation with the result that post-tests were not administered in one classroom.

Child attendance was also low, and among the children attending, fewer actually completed and handed in writing assignments than in the fall term. Tally of completed stories is presented in Table 4.

Measures of Writing Skills

Writers and researchers spent the better part of two months wrestling with the problem of specifying criteria of "good writing" which had both artistic validity and could be operationalized into reliable measures. This, of course, represents the "Achilles heel" in efforts to assess achievements of writing programs objectively. (Similar difficulties confront efforts to evaluate competing curricula and teaching techniques in regular classroom language arts programs and the problem merits major research investment.) However, this Project had neither the mandate nor the resources to develop, test and apply new standards. It attempted to accomplish the best match between writers' views and quantitative measures which could be applied to the stories and scored in hand coding by a research assistant.

In the course of the discussions, four aspects or qualities of writing were put forward by writers which appeared to offer possibilities of measurement. Some of these reflected criteria they themselves had applied "intuitively" in their story ratings.

First was language diversity, a characteristic which could be operationalized by measures of lexical diversity.

Second was authenticity, described by the writers as the author's concern about the motivations, feelings and inner life of his characters. As an index of this quality, researchers proposed a tally of words describing emotional states (e.g. "happy"), emotional responses (e.g. "I hated . . .") and inner mental activities (e.g. "guess", "think", "wonder"). A second aspect of authenticity was the degree to which the writer specified causal and temporal relations among events, both inner and outer.

Writers valued imagery in writing but failed to agree on the particular features of compositions which yielded this quality. Researchers proposed to tally frequency of metaphors and similes as an

index, but so few illustrations of these devices were found in a pilot sample of stories that this effort was dropped.

An attempt to assess another aspect of writing valued by the artists - that of voice - was also dropped when neither writers nor researchers could produce a specification enabling cross-story and cross-author comparisons.

Analysis and Findings

Analyses were based on various story samples pulled. (Table 4) Construction of samples was based on the following considerations: each child in the sample was to be represented by both pre- and post-measures on the same story assignment (e.g. two measures on skeleton stories or two measures on open stories); the composition of each comparison group was to be equated for language background and reading level - two factors which could be expected to influence writing skills considerably and independently of personal experience in creative writing projects.

We also wanted to have the composition of the comparison groups representative of the major home-language groups in the schools, principally English and Spanish. Thus, each story sample was composed of texts produced by English-monolingual children reading at or above grade level and English-monolingual children reading below grade level; Spanish-English bilingual children reading at or above grade level and Spanish-English bilingual children reading below grade level. With these restrictions, the total number of stories available for analysis consisted of 56 from each comparison group, representing two stories (pre and post) from each of 28 children - ten mono-lingual children reading on or above grade; six mono-lingual reading below; four bi-lingual reading above; eight bilingual reading below.*

---

*There were unequal distributions of reading scores in the mono- and bilingual groups, precluding an even number of children in each cell. Since the study's intent was not to investigate the effects of language and reading factors per se, but rather to control for them, this purpose was met by ensuing equal representation of language and reading levels between, rather than within, comparison groups.

Subsets of this sample were used for various measures as explained below. Subsets were selected at random and were motivated by the necessity of reducing coding operations to a manageable level. These were performed by hand with the assistance of a part-time research worker.

1. Diversity

These analyses were based on 14 pairs of stories for each of the three comparison groups: 42 children and 84 stories, six monolingual children on or above grade level; four monolingual children reading below grade level, one bilingual reading above grade and three bilinguals reading below grade. Eight story pairs were skeleton stories, six were open. Principal findings are as follows.

Children in P.S. 75 wrote longer stories than those in P.S. 84 and satellite children produced the longest. Group differences were not significant at pretest but were at post-test ($F=3.57$, $d.f.=2.39$, $p > .05$; see Table 5).

Lexical diversity was measured by computation of a type-token ratio for each story employing the formula proposed by Carroll (1964) which adjusts for story length. On this measure, no significant group differences were found at the beginning of the year ($F=1.08$, $d.f.=39$, n.s.) but there were significant differences at the end of the year. Children at P.S. 84 and low-participation children at P.S. 75 had similar mean type-token ratios and both were lower than that of the P.S. 75 high-participation satellite group ($F=4.01$, $d.f.=2.39$, $p. > 05$).

In addition to this overall score, analyses were made of particular lexical domains, which seemed of special interest as indicators of more flexible and more varied language usage. These were carried out on skeleton stories only to control as much as possible for subject matter which clearly has an effect on vocabulary. Pre and post measures were combined here since the features of text under study occurred too infrequently to allow for simultaneous comparisons of test times and populations.

One analysis concerned children's use of verbs, a subset of overall vocabulary which seemed to vary markedly across individual productions. In some stories, key action words were both routine and repetitive (as exemplified by frequent use of such verbs as going, coming, saying); in others, unusual words were employed to denote action, such as catapalt and scald. A tally of number of different verbs used in both pre- and post- test stories ranked groups as follows: P.S. 84 children (mean of 6.92 different verbs per child), followed by P.S. 75 non-satellite children (mean of 8.46) and P.S. 75 satellite children (mean of 11.2). Since total output ranked groups in the same way, this may seem a trivial difference; however, it indicates that P.S. 75 children were not merely adding to the length of their stories through repetitive devices but were continuing to elaborate new meanings and narrate new events through the introduction of new action-words as they extended their writing activities.

An analysis was also made of the variety of ways in which children expressed relations among events. All compound and complex sentences were included in this analysis which tallied the number and types of conjunctions used to conjoin clauses in each story, exclusive of relative pronouns. Children in the comparison groups used about the same number of conjunctions: group means were 70,76, and 80 for P.S. 84, P.S. 75 non-satellite and P.S. 75 satellite groups, respectively. However, children in P.S. 75 made proportionately greater use of causal and temporal conjunctions (such as due to, because, but, until) than P.S. 84 children; and, conversely, lesser use of the and conjunction. Temporal-causal conjunctions comprised 48% of total conjunctions used by P.S. 84 children and 64% and 56% for P.S. 75 non-satellite and satellite children. Simply put, while children in all groups used about the same number of conjunctions, children at P.S. 75 tended to mark the relationship between clauses more explicitly.

2. Authenticity

Two measures of authenticity were used: number of explanatory or causal statements and number of words referring to inner states or

processes. Explanatory statements included (1) statements about motivations ("She didn't like it so she changed it for another one"); (2) conditional statements linking two events ("If you do it too fast, the money will be gone"); (3) statements describing instrumental causes of events ("The way you win is just by luck"): and other causal relations ("But he could not run so fast because he had a bad leg.")

Contrary to expectations there were no group differences in the number of explanatory statements.

References to inner feelings included words describing emotional states (happy, worried, afraid); words describing mental processes (decide, guess, reason, dream) and words describing motivational attitudes or dispositions (want, like, care, need). Tallies of total number of such words used as well as total of different types of words used shows group differences favoring the satellite group although these differences did not reach significance.

Summary and Discussion

Evidence appears to support the generalization that children engaged in specialized and intensive creative writing projects employ a more varied expressive vocabulary than others not so involved. Type-token comparisons are clear-cut in this respect, with superiority displayed by satellite children only. Analyses of special lexical domains of verbs and conjunctions are less striking but suggestive of the way in which "diversity" is emobdied in the stories. Children in the three groups do not appear to differ in their propensity to make causal or motivational statements. However, these seem to be expressed in rather different ways. Children in contact with the Collaborative tend to use a more explicit vocabulary for marking causal and temporal relationships and for expressing inner states.

General Discussion

It is in the public interest to determine whether the achievements registered by creative writing programs in the schools are "sports"

(i.e. restricted to children with special characteristics) or are generalizable to broad sections of the child population. Research reported here, in spite of its many limitations, suggests that skills in writing fostered by Teachers and Writers Collaborative are not restricted to a special few. Children attracted into the program, and continuing to produce in the program, represent a cross-section of an economically and ethnically varied child population. If self-selection factors enter, they appear to enter largely by "over-representation" of children whose language arts skills do not command top reading scores or grades. Whether or not the picture sketched here characterizes all, or a majority of schools serviced by Teachers and Writers Collaborative, is of course, an open question. But the demonstration that the Program can engage and hold many types of children and especially children who are not "super-readers" is important in itself.

Moreover, this research lends some support to the claims of writers that they develop writing skills in children, which persist and are displayed in classroom and other writing situations.

The discrepancy between the qualities which writers perceive in children's writing and the aspects of writing which we could measure is enormous. Clearly, we were in no position to assess impact or improvement in any major sense. It is questionable whether means to do so are at hand. There has been considerable progress in recent years in the development of analytic schemes to capture certain structural properties of narratives (see Mandler, in press, Kintsch, 1974, for example), but these are at present applicable only to very limited kinds of writing. Attempts to apply them to children's writing failed, primarily because the applicable adult structure rarely occurred. Moreover, even these schemes are far removed from capturing the qualities artists stress as important to good writing. If, indeed, continued studies are planned on the teaching and learning of writing, it would seem critical to invest in projects which can develop appropriate methodology for analyzing children's writing. The corpus collected here is available for that purpose.

Whatever the frailty of particular pieces of evidence, taken together our data indicate that professional writers are effective

educational agents. If this is the case, it would appear important to go beyond measurements of achievement to determine what instructional processes produce this achievement: how do writers succeed in engaging children in writing and sustaining their interest? how do they encourage children to criticize and improve their work? Observational studies of writers-and-children interacting in special projects could provide important clues to these questions. Writers have described their experiences and their goals but to our knowledge no outside eye has viewed this process in an effort to capture and communicate what is being done and how it is being done. Ethnographic studies of this kind are likely to be warmly received by writers, teachers and children. Impact studies, on the other hand, such as the present one, require a level of sophisticated commitment to research on the part of all program participants which is not readily attainable.

References:

Carroll, J.B., Language and Thought. Englewood Cliffs, New Jersey: Prentice-Hall, 1964, p. 54.

Emig, J.A., Components of the Composing Process among Twelfth Grade Writers. Unpublished doctoral dissertation. Harvard University, 1969.

Frederickson, C.H., Representing Logical and Semantic Structure of Knowledge Acquired from Discourse. Cognitive Psychology, 1975, 7, pps. 341-458.

Graves, Donald H., Children's Writing: Research Directions and Hypotheses Based Upon an Examination of the Writing Processes of Seven Year Old Children. Unpublished doctoral dissertation. State University of New York at Buffalo, 1973.

Holstein, B.I., Use of Metaphor to Induce Innovative Thinking in Fourth Grade Children. Unpublished doctoral dissertation. Boston University, 1970.

Kintsch, W., The Representation of Meaning in Memory. Hillsdale, New Jersey, Lawrence Erlbaum Associates, 1974.

Mandler, J., Johnson, N. and DeForest, M., Remembrance of Things Parsed. Cognitive Psychology, In press.

Meyer, B.J.F., The Organization of Prose and its Effects on Memory. Amsterdam: North Holland Publishing Company, 1975.

Vygotsky, L.S. Thought and Language. Cambridge: The M.I.T. Press, 1962.

APPENDIX A

Instructions and assignments for writing samples:

SKELETON STORIES:

"We're going to work on a writing exercise today that you will not be graded on. It is for the purpose of planning new creative writing programs in the schools. On your paper, write your name and the date, and indicate whether you are a fifth or sixth grader and your teacher's name. What I have written on the board is an idea or a springboard for a story. These are not necessarily the first two sentences of the story. (READ THE SENTENCES ALOUD TO THE CLASS.)

Skeleton Story A

A family wins the lottery.... The money changes their lives.

Skeleton Story B

A man leaves the house.... His body is found the next morning.

Now read these again silently to yourselves. Do you have any questions about what any of these words mean? I would like you to write a story using this idea, filling in all the details that you think are necessary to tell the story. Think about what might have happened between these two events. Imagine someone...perhaps it is someone you know...think about them and what might have happened. Write as much as you like. You will have enough time to finish. Do not be overly concerned with neatness, but be sure that we will be able to read what you have written. If you want to use a word that you do not know how to spell, please try the best you can. Remember, you will not be graded on what you write, nor will your story be read by anyone else in this class. When you are finished, bring your paper up to me."

OPEN STORIES:

"We are going to work on a writing exercise today that you will not be graded on. It is for the purpose of planning new creative writing programs in the schools. I want you to write a letter to someone you can't or don't usually talk to. I want you to talk on paper to someone or something. Write as much as you like. You will have time to finish. Remember, you will not be graded on this, nor will anyone else in this class read what you have written. Do not be overly concerned with neatness...etc. (Same last sentences as above.)"

Table 1. Demographic Characteristics, P.S. 75 Children, Grades 4-6

	Non-Satellite (N=56)	Satellite (N=89)
	%	%
Sex		
Male	.52	.52
Female	.48	.48
In Program Before?		
Yes	.50	.35
No	.50	.65
Family Background		
Lives with one or more parents		
Both	.61	.61
One	.39	.39
Siblings		
Yes	.37	.71
No	.63	.29
Language Spoken at home		
English	.73	.75
Spanish	.27	.25
Spanish/English or other		

Table 1. (continued)

	Non-Satellite	Satellite
Parents Read and Write English		
Yes	.89	.83
No	.05	.14
Not known	.06	.03
Magazines and Newspapers at Home		
Yes	.71	.73
No	.16	.11
Not known	.12	.16
Father's Education		
College	.37	.40
High School or below	.43	.36
Not known or lives with mother	.20	.23
Mother's Education*		
College	.45	.36
High School or below	.48	.42
Not known or lives with father	.07	.22
Father's Employment		
Professional	.39	.24
White Collar	.14	.24
Blue Collar	.12	.13
Not known or father not home	.34	.39

Table 1. (continued)

	Non-Satellite	Satellite
School Performance		
English as a Second language		
Yes	.14	.10
No	.86	.90
Teacher's Evaluation of Spoken English		
Good	.93	.90
Fair	.03	.06
Poor	—	.02
Missing Data	.03	.02
Social Behavior (1974)		
Satisfactory	.71	.66
Fair	.09	.17
Unsatisfactory	.05	.04
Missing Data	.14	.12
Average Grade in Language Arts (1974)		
(Reading, oral comprehension, writing)		
Excellent or Good	.75	.54
Fair	.20	.36
No Grade	.05	.10
Teacher's Evaluation of Reading		
On or above	.625	.49
Below	.375	.48
Missing Data	—	.02

Table 1. (Continued)

	Non-Satellite	Satellite
Reading Level in Standardized (MAT) Tests, 1974*		
On or above grade level	45%	38%
Below	36%	33%
No Score Available	19%	29%

*These comparisons are attenuated by the fact that more data are missing in the Satellite than non-Satellite group.

Table 2. Involvement in Satellite Project Activities

SES*	Involvement: Light		Average		Heavy	
	Number	Percent				
Middle-Class (N=53, 50 with English as first language)	8	(15)	17	(32)	28	(53)
Non-Middle-Class (N=36, 12 with English as first language)	2	(06)	16	(44)	18	(50)

N=89

*Classification based on father's occupation and educational level. Cases falling into the "insufficient information" category appeared on the basis of other indices to be primarily, if not entirely, "non middle-class" and have been combined for purposes of calculating percentages.

Table 3. Criteria used by teachers and writers in story ratings

Comment Category	Relative Percentage of Use by Teachers	Relative Percentage of Use by Writers
Generalizations Only	37.0	12.0
(1) Originality	19.0	8.0
(2) General Comments	18.0	4.0
Story Features	24.5	56.5
(3) Expresses Strong feeling	5.5	16.0
(4) Believable events	5.5	20.0
(5) Predictable plot	5.5	11.0
(6) Logical coherence	3.0	3.0
(7) Pacing of events	2.0	5.5
(8) Humor	3.0	1.0
Language Features	20.5	21
(9) Imagery & good description	4.5	11.0
(10) Rhythm & rhyme	3.0	4.0
(11) Vocabulary & Sentence diversity	5.5	4.0
(12) Grammar & spelling	7.5	2.0
Other	18	11
(13) Social values of story theme or	9.0	2.0
(14) Maturity/Sensitivity of Writer	9.0	9.0

Table 4. Number of Completed Stories Obtained from Each Group

	P.S. 84 (non-participation)	P.S. 75 (low participation)	P.S. 75 (satellite, high-participation)
Open Story			
October (pretest)	46	63	46
June (posttest)	46	41	37
Skeleton Story			
October (pretest)	46	68	49
June (posttest)	30	32	28

Table 5. Comparison of Children's Writing: Selected Measures

	P.S. 84 (non-participation)	P.S. 75 (low-participation)	P.S. 75 (satellite, high participation)
Story length (mean number of words per story)			
October (pretest)	79.36	93.29	129.78
June (posttest)	49.07	66.93	98.71
Type-token ratios (group means)			
October (pretest)	3.85	3.84	4.45
June (posttest)	3.37	3.54	4.74
*Vocabulary diversity (group means)			
Number different verbs	6.92	8.46	11.20
Number different conjunctions	7.0	7.6	8.0
Number different "inner state" words	2.5	2.7	4.3
*Number explanatory statements (group total)	32	27	29
*Ratio causal/all conjunctions (group total)	.48	.64	.56

*Data are summed across pre and post measures